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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,547

08/27/2003

Messay Amerga

020683

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04/06/2005

Qualcomm Incorporated  
Patents Department  
5775 Morehouse Drive  
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EXAMINER

AGHDAM, FRESHTEH N

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/650,547

Applicant(s)

AMERGA ET AL.

Examiner

Freshteh N. Aghdam

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 14 and 16-21 is/are rejected.
- 7) ☒ Claim(s) 8-11, 13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities:

The copending US Patent Application No. should be cited for the purposes of clarity on page 10.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claim 5, the limitations recited in claim 5 are not described in the disclosure of the invention.

As to claim 6, the limitations recited in claim 5 are not described in the disclosure of the invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 3, 12, 16, 17, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Aikawa et al (US Pub. 2003/0076801).

As to claims 1, 16, 20, and 21, Aikawa et al teach a cell search controller that correlates a received signal with a synchronization sequence to produce a first plurality of search results wherein each search result comprises at least one of an energy indicator or an offset at sections 21, 22, and 23; and a processor for comparing the stored offset with the search result offset and deleting the corresponding search results from the first plurality of search results when the search result offset is within a predetermined threshold of the stored offset at section 24 (Fig. 3 and 4; Pg. 2, Par. 15).

As to claims 2 and 17, a plurality of scrambling code identifiers wherein the scrambling code identifiers are responsive to the multi-path deletion section 24 in which contains the predetermined offset table (Fig. 4; Pg. 5, Par. 55). One of ordinary skill in

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the art would clearly recognize that it is well known in the art to store the scrambling code identifiers responsive to the predetermined offset in a memory.

As to claim 3, Aikawa et al teach a cell search controller in a mobile station, which receives a signal from a base station (Pg. 1, Par. 2).

As to claim 12, Aikawa et al teach a cell search controller that has a fixed threshold (FIG. 5, Block S14).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aikawa et al, and further in view of Papageorngiou et al (US Pub. 2004/0100935).

As to claim 4, Aikawa et al teach subject matters as recited in claim 1, except for the received signal comprising a scrambling code transmitted over a plurality of slots and a synchronization sequence repeated during each slot. Papageorngiou et al disclose a received signal comprising a scrambling code transmitted over a plurality of slots and a synchronization sequence repeated during each slot (Pg. 1, Par. 2; Pg. 3, Par. 62). Therefore, it would have been obvious to one of ordinary skill in the art to

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combine the teaching of Papageorngiou et al with Aikawa et al in order to establish slot synchronization.

As to claim 14, Aikawa et al teach a secondary synchronization sequence detection block 3 wherein the received signal is inputted to block 3 and the secondary synchronization sequence establishes frame timing in which each frame comprises of 15 time slots (0-14) and a unique subset of scrambling codes (Fig. 1, 11, and 12; Pg.1, Par. 3 and 8). Papageorngiou et al teach a transmitted secondary synchronization sequence comprising 256 chips in 15 time slots in a frame (Pg. 1, Par. 3). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Papageorngiou et al with Aikawa et al in order to accomplish synchronization with a base station.

As to claim 19, Papageorngiou et al teach obtaining scrambling code groups and slot time of next cell in neighboring list (Fig. 2, Block 202). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Papageorngiou et al in order to perform secondary synchronization channel search at the code group (Fig. 2, Block 203).

Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aikawa et al and Papageorngiou et al, further in view of Rick et al (US Pub. 2003/0086512).

As to claims 7 and 18, Aikawa et al and Papageorngiou et al teach all the subject matters claimed above, except for the searcher correlates the received signal with a scrambling code over a search window to produce a list search result. Rick et al, in the

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same field of endeavor, teach a searcher that correlates the received signal with a scrambling code over a search window to produce a list search result (Pg. 6, Par. 78). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Rick et al with Aikawa et al and Papageorgiou et al in order to do ray classification.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aikawa et al, and further in view of Thomas et al (US Patent 6,711,219).

As to claim 17, Aikawa et al teach all the subject matters claimed above, except for selecting the stored offset from a plurality of scrambling code identifiers and associated offsets stored in a memory. Thomas et al, disclose the term "code offset" refers to a location within a code. For example, base stations in certain wireless environments distinguish between each other by their location within a particular pseudorandom code (Col. 8, Lines 6-10).

#### ***Allowable Subject Matter***

Claims 8-11, 13, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 8-11, the prior art of record fails to teach the processor further directs the searcher to search a search window around the offset associated with one or more of the first plurality of search results using one or more scrambling codes identified by one or more of the second plurality of scrambling code identifiers respectively.

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As to claim 13, the prior art of record fails to teach the predetermined threshold is variable, increasing with an increase in the time lapsed since the associated offset was determined.

As to claim 15, the prior art of record fails to teach the searcher further correlates the received signal with the sub-sequences in accordance with the offset of one of the first plurality of search results to identify the respective secondary synchronization sequence; correlates the received signal with each of the subset of scrambling codes until the correlation energy exceeds a threshold; and generates an indicator identifying the scrambling code transmitted at the offset of the search result of the first plurality of search results.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mattew et al (US Pub. 2004/0161020), Lim et al (US Pub. 2003/02025541), Jha (US Pub. 2001/0048714), Shamazaki (US Pub. 2003/0112850), Akita et al (US Pub. 2002/0191681), and OK et al (US Pub. 2003/0095516).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone



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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam

March 30, 2005

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